DOCUMENT RESUME

ED 033 371 AL 002 168

AUTHOR	Kess, Joseph F.
TITLE	English Influences in the Phonology of Japanese as Spoken in Hawaii.
Pub Date	[69]
Note	13p.
Available from	Linguistic Society of New Zealand, c/o University of Auckland, Private Bag, Auckland (U.S. $1.80 per single copy).
Journal Cit	Te Rec: Proceedings of the Linguistic Society of New Zealand; v10-11 p27-39 1967-68
EDRS Price	EDRS Price MF-$0.25 HC-$0.75
Descriptors	Bilingualism, Consonants, *Culture Contact, *English, *Interference (Language Learning), *Japanese, Phonemes, *Phonology, Syllables, Vowels
Identifiers	*Hawaiian Japanese

Abstract

This study surveys some of the results of linguistic contact between English and Japanese as spoken by monolingual and bilingual individuals of Japanese ancestry in Hawaii. More specifically the aim of the study is (1) to identify and classify those English influences which have been introduced and accepted into Hawaiian Japanese (HJ) and (2) to indicate the extent to which these influences have altered the phonological structure of HJ. A corpus was established in which borrowings were classified according to their degree of assimilation; only those forms designated as partially assimilated (those forms found to be more like Japanese than English in their phonological constituency) were further analyzed and used as a basis for determining the established English phonological influences. These English influences were classified into four major categories: new phonemes, new distributions, clusters, and combinations. In all, 30 influences were found, five in the phonemic inventory and 25 in the phonotactics. Particularly significant are the appearance of consonant clusters and new syllables. The author feels that the great influence of English on the phonology of HJ has resulted in a variety of Japanese which is different from any other, and which may therefore be considered a separate dialect. (Author/FWB)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED033371

ENGLISH INFLUENCES IN THE PHONOLOGY OF JAPANESE AS SPOKEN IN HAWAII

Joseph F. Kess

(University of Victoria)

Introduction

When for social, political or cultural reasons, two languages come to share the same environment, varying degrees of reciprocity are bound to be established between them. That is, as a result of the contact, varying degrees of linguistic change are bound to occur in the languages involved. This study, then, intends to survey certain of the results of linguistic contact between English and Japanese as spoken in Hawaii.[1] The Japanese spoken by monolingual and bilingual individuals of Japanese ancestry in Hawaii may be designated as "Hawaiian Japanese" (and will be hereafter referred to as HJ).[2]

More specifically, the aim of this study is (1) to identify and classify those English influences which have been introduced into and have been accepted in the phonological structure of HJ and (2) to indicate the extent to which these influences have altered the phonological structure of HJ.

Methodology

There were two main phases involved in the preparation of this study. These were collection of data and analysis of the data. The first phase involved gathering linguistic data relevant to the aims of the study and included two major steps: field work in the Japanese community in Honolulu and validation of the materials collected.

In carrying out the first step, several approaches were utilized. These included monitoring local "phone-in" Japanese language radio broadcasts (Honolulu has 5 Japanese radio stations) and frequenting places in Honolulu where Japanese is usually spoken (e.g., fish and produce markets, *kenzinkai* (prefectural meetings), barber shops, religious services, etc.). It was possible in this way to obtain forms which were used freely and without inhibition in the context of daily conversation. A phonetic transcription was made and the forms kept for critical evaluation.

The second step involved the participation of several informants who were speakers of Hawaiian Japanese. It was their task to act as a validation committee for the elicited forms. If an item was considered to be sufficiently widespread in the community, it was included for further analysis. If not, it was eliminated from the corpus.

---

1. - The data presented in this study was originally gathered in Hawaii in 1964-65 in the preparation of an M.A. thesis. See Kess, 1965.
2. The Japanese have constituted a sizeable proportion of the population of Hawaii from the very beginning of their presence there. They comprised 14.0% of the population in 1890 (Japanese immigration began on a serious scale in 1885), reached a maximum peak (42.7%) in 1920, and dropped to 32.5% in 1945. Lind, 1946: 14.
   The Japanese continued to be the largest single ethnic group in Hawaii until the 1950's. However, with the great post-war influx of mainland Caucasians and ensuing statehood in 1959, the Japanese became Hawaii's second largest ethnic group.

AL 002 168

The second phase, analysis of the data, was also divided into two parts. These were the phonological analysis of the corpus and the separation and final analysis of a subcorpus.

Preliminary identification of the corpus of *diffused* forms was implied in the first phase.[3] What remained to be done was the classification of borrowings in the corpus according to their degree of assimilation. Forms which were completely assimilated to the phonological structure of Japanese comprised one category. Forms which were only partially assimilated comprised another category, and forms which were unassimilated still another.

The classification of such forms implied a knowledge of the phonological structures of Japanese and English and the history of their contact. In the light of this information, decisions had to be made as to whether specific lexical forms had been completely adapted (assimilated forms) or not. If the form was found to be more like Japanese than English in its phonological constituency, it was considered to be partially assimilated. If, on the other hand, it was found to be more like English than Japanese, it was considered to be unassimilated.

Of the three categories thus obtained, only one was retained for further analysis. Obviously, the assimilated forms, which were faithfully adapted to the structures of Japanese phonology, included no phonological influences, and the unassimilated forms were considered part of English rather than of Japanese. Consequently, only the partially assimilated forms were considered relevant for further analysis.

Next, an analysis of the partially assimilated forms was carried out. The result of this analysis was a listing and classification of the *established* English phonological influences. The criteria used to determine whether or not an influence was established were *recurrence* and *adaptation to the structure of Hawaiian Japanese.*[4] In other words, an established influence was a borrowing which was elicited from several informants and which was considered more adapted to the structure of HJ than not.

The Phonology of Standard Japanese.

The main purpose of the following section is to present a basic and yet summary description of Japanese phonology. Since the presentation of Japanese phonology is a concern only as a frame of reference by which to gauge the influence of English, this section will be limited to essentials. The dialect which is described is the modern standard colloquial, defined as the speech of educated persons native to Tokyo. With the exception of accentual pitch patterning, the various dialects of Japanese are phonologically similar enough to merit valid generalizations based on the Tokyo dialect.

The segmental phonemes of Japanese are listed below, followed by a listing of the major allophones of each, a descriptive statement, a statement of occurrences, and examples.[5]

---

3. Diffused forms are cases of "switching," "interference," and "integration." *Switching* "occurs when a bilingual introduces a completely unassimilated word from another language into his speech..." *Interference* is "the overlapping of two languages" and *integration* is "the regular use of material from one language in another..." See Haugen, 1956: 40, for more detailed discussion.
4. See Tsuzaki, 1963, for a similar treatment.
5. This analysis of Tokyo standard colloquial phonology is based on Martin 1952 and Hattori 1960.

Consonant Phonemes

	Bilabial	Dental	Alveolar	Prepalatal	Velar	Glottal	Syllabic
Stops	p	t			k		Q
	b	d			g		
Fricatives			s			h	
			z				
Nasals	m	n			ŋ		N
Flaps			r				
Semi-vowels	w			j			

Vowel Phonemes

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

Phonemes	Allophones	Descriptions: Occurrences: Examples
/p/	[p]	Aspirated voiceless bilabial stop; /pa¬Qto/ 'suddenly', /ha¬apu/ 'harp'.[6]
/t/	[ts]	Voiceless alveolar affricate, before /u/; [tsu⌐ru] 'to fish', [ka¬tsU] 'to win'.
	[tš]	Voiceless prepalatal affricate, before /i j/; [tšja⌐wã] 'rice-bowl', [ke¬tsI] 'stingy'.
	[t]	Aspirated voiceless dental stop, elsewhere; [ta¬] 'field', [çI⌐tai] 'forehead'.
/k/	[k]	Aspirated voiceless velar stop; /ki¬/ 'tree', /ka⌐ki/ 'persimmon'.
/b/	[b]	Voiced bilabial stop; /ba⌐N/ 'evening', /ha⌐ba/, 'width'.
/d/	[d]	Voiced dental stop; /de⌐si/ 'disciple', /ka¬do/ 'corner'.
/g/	[g]	Voiced velar stop; /gi¬N/ 'silver', /ma⌐go/ 'grandson'.
/s/	[š]	Voiceless prepalatal fricative, before /i j/; [šI⌐ka] 'deer' [ka¬šI] 'confectionary'.

6. A left-angle bracket (⌐) indicates a rise in pitch from low to high and a right-angle bracket (¬) indicates a fall in pitch from high to low.

	[s]	Voiceless alveolar fricative, elsewhere. [su˩ru] 'to do', [ka˩su] 'to lend'.
/z/	[dž]	Voiced prepalatal affricate, before /i j/; [dži˩mã] 'pride', [ka˥dži] 'fire'.
	[z]	Voiced alveolar fricative, elsewhere; [zo˥o] 'elephant', [ka˥zã] 'volcano'.
/h/	[Φ]	Voiceless bilabial fricative, before /u/; [Φu˩ju] 'winter', [çi˥ΦU] 'skin'.
	[ç]	Voiceless prevelar fricative, before /i j/; [çI˩to] 'man, [dzi˩çjoo] 'self-criticism'.
	[h]	Voiceless glottal fricative, elsewhere; [hẽ˥] 'strange', [çI˩hã] 'criticism'.
/m/	[m]	Voiced bilabial nasal; /me˥/ 'eye', /ka˥mi/ 'God'.
/n/	[n]	Voiced dental nasal; /ne˥/ 'root', /mu˩ne/ 'bosom'.
/ŋ/	[ŋ]	Voiced velar nasal; /sjooŋa˥Qkoo/ 'primary school'.
/ɾ/	[ř]	Alveolar flap; /ra˥N/, 'newspaper column', /sa˥ru/ 'monkey'.
/j/	[j]	Voiced prepalatal median resonant; /ju˩ki/ 'snow', /ha˩jasi/ 'a wood'.
/w/	[w]	Voiced bilabial median resonant; /wa˩ka˥i/ 'young', /ka˩wa/ 'river'.
/N/	[m]	Voiced bilabial nasal, before /p b m/; [ke˩mbutsu] 'sight-seeing'.
	[n]	Voiced dental nasal, before /t d n z/; [tšja˩nto] 'perfectly'.
	[ŋ]	Voiced velar nasal, before /k g ŋ/; [ge˥ŋki] 'good health'.
	[~]	Nasalization of preceding vowel, utterance-final and elsewhere; [kã] 'intuition', [kẽ˩sa] 'examination'.
/Q/		Glottalization, tenseness, and gemination accompanying articulation of consonants /p t k s/; /i˩QpeN/ 'once'.
/i/	[I]	Voiceless high front vocoid, in voiceless environment, under specific conditions; [tši˥šIki] 'knowledge', [ka˥kI] 'oyster'.[7]

7. Voiceless allophones [I U] usually occur between voiceless consonants, (often voiceless fricatives) in sequences of two syllables, the syllable without the accent being unvoiced. They also occur after voiceless consonants, before final pause, if the accent has already fallen on one of the preceding syllables. Martin, 1952: 13.

	[i]	Voiced high front vocoid, elsewhere; [kĩ˥] 'gold, [ka⌜ki] 'persimmon'.
/u/	[U]	Voiceless high back unrounded vocoid, in voiceless environment, under specific conditions; [tsU⌜ku˥su] 'to exhaust', [ka˥šjU] 'alcohol'.
	[u]	Voiced high back unrounded vocoid, elsewhere; [gũ˥] 'army', [ga⌜šju] 'elegance'.
/e/	[E]	Voiceless mid front vocoid, in voiceless environment in initial syllables, under specific conditions; [tE⌜tenaši˥ŋo] 'bastard'.[8]
	[e]	Voiced mid front vocoid, elsewhere; [gẽ˥] 'word', [ka⌜ze] 'wind'.
/o/	[O]	Voiceless mid back unrounded vocoid, in voiceless environment in initial syllables, under specific conditions; [kO⌜ko˥ro] 'heart'.
	[o]	Voiced mid back unrounded vocoid, elsewhere; [ko˥dai] 'ancient times', [ko⌜no] 'this'.
/a/	[A]	Voiceless low central vocoid, in voiceless environment in initial syllables, under specific conditions; [hA⌜hato] 'with Mother'.
	[a]	Voiced low central vocoid, elsewhere; [ka˥kU] 'to write', [u⌜ma] 'horse'.

There are six syllable types in Japanese. The syllable structure of Japanese is encompassed by the following types:[9]

/V/	/CSV/
/CV/	/Q/
/SV/	/N/

All of the consonantal phonemes appear in syllable-initial position except /Q N/. All of the vowel phonemes appear in initial position. In final position, only /N/ of the consonantal series is found to occur. All other words end in vowels.
Examples: /ka⌜N/ 'intuition', /ka˥ki/ 'oyster', /ka˥sju/ 'alcohol', /ka⌜ze/ 'wind', /ko⌜ko˥ro/ 'heart', /u⌜ma/ 'horse'.

---

8. Voiceless allophones [E O A] usually occur in initial syllables between voiceless consonants where the same vowel occurs in the succeeding syllable, and where the accent does not fall on the first syllable. Martin: 13-14.
9. Hockett states that "the Japanese syllable is defined fundamentally in terms of duration and nothing else." Even syllables like /Q/ and /N/ which cannot be broken down fulfill the requirement of syllabicity by simply lasting the proper length of time. See Hockett, 1955: 59.

There are a few exceptions to the general rule that all consonants may occur with all vowels, and vice versa. They are as follows: /d/ occurs only before /a e o/; /j/ occurs only before /a o u/; and /w/ occurs only before /a/.

Clusters, which are closely knit sequences of consonants within the same syllable, do not occur in Japanese. There is a /CS/ sequence in Japanese which is composed of a consonant (/C/) plus a semi-vowel (/S/). In such cases, /S/ always represents /j/ and is always followed by /a o u/ to form a complex nucleus -- a palatal onglide and a vowel. The phoneme sequences which belong to this type are as follows: /pj-, tj-, kj-, bj-, gj-, sj-, zj-, hj-, mj-, nj-, ŋj-, rj-/. Examples: /pju⌝uto/ 'with a whiz', /tjo⌜odo/ 'just right', /kjo⌝o/ 'today', /bjo⌜oki/ 'sickness, /gja⌜ku/ 'reverse', /sjo⌝oŋjoo/ 'commerce, /zjo⌜o⌝o/ 'queen', /rjo⌜kaN/ 'hotel, inn'.

The usual number of consonants involved in a combination - a sequence of consonants in two successive syllables - is two. Combinations in Japanese may be classified into two main types: the /-NC-/ type and the /-QC-/ type. Combinations belonging to the first group are as follows: /-Np-, -Nt-, -Nk-, -Nb-, -Nd-, -Ng-, -Ns-, -Nz-, -Nh-, -Nm-, -Nn-, -Nŋ-, nNf-, -Nj-, -Nw-/.
Examples: /ki⌜Npatu/ 'auburn-coloured', /tja⌜Nto/ 'precisely', /sa⌜Nka/ 'participation', /ke⌜Nbutu/ 'sight-seeing', /ko⌜Ndo/ 'this time', /ko⌜Ngetu/ 'this month', /ke⌝Nsa/ 'examination', /sa⌜Nzai/ 'waste of money', /ma⌜Nne⌝Nhitu/ 'fountain pen', /sa⌝Nmai/ 'three sheets of paper', /ko⌝Nniti/ 'today', /se⌝Nŋo/ 'post-war', /sa⌝Nri/ 'three (Japanese) miles', /ko⌜Njaku/ 'engagement', /de⌜Nwa/ 'telephone.'

Combinations belonging to the second type are as follows: /-Qp-, -Qt-, -Qk-, -Qs-/. Examples: /ki⌜Qpu/ 'ticket', /tjo⌝Qto/ 'just a minute', /ga⌜Qkoo/ 'school', /za⌜Qsi/ 'magazine'.

The /-NC-/ combination may be extended to the /-NCS-/ type. Combinations belonging to this group are as follows: /-Npj-, -Ntj-, -Nkj-, -Nbj-, -Nsj-, -Nzj-, -Nhj-, -Nmj-, -Nnj-, -Nŋj-, -Nrj-/.
Examples: /ge⌜Npjoo/ 'starting point of mileposts', /e⌜Ntjoo/ 'continuation', /be⌜Nkjoo/ 'study', /hu⌜Nbjoo/ 'a short space of time', /sa⌜Ngjoo/ 'industry', /hu⌜Nsjutu/ 'a spurt', /be⌜Nzjo/ 'toilet', /si⌜Nmjoo/ 'mysterious', /si⌜Nnjuu/ 'invasion', /e⌜Nrjo/ 'reservation'.

The /-QC-/ type may also be extended by the addition of a semi-vowel in the second syllable. These are of the /-QCS-/ type. Combinations belonging to this group are as follows: /-Qpj-, -Qtj-, -Qkj-, -Qsj-/. Examples: /ha⌜Qpjoo/ 'announcement', /ki⌜Qtjoo/ 'good omen', /ka⌜Qkjoo/ 'showing signs of activity', /i⌜Qsjo/ 'together with'.

Occasionally, combinations of a /-NQC-/ type are to be found. Combinations belonging to this group are as follows: /-NQt-, NQk-/. Examples: /a⌜rimaseQte/ 'he says it isn't here', /ro⌝NdoNQko/ 'a Londoner'.

Inventory of Phonological Influences.

As has been mentioned, the second phase of the study, the analysis of the data, was divided into two steps: (a) the phonological analysis of the corpus; and (b) the separation and further phonological analysis of a subcorpus. Forms which are relevant to the second step are those forms which have been only partially assimilated to the phonological structure of Japanese. They exhibit *established* English influences, i.e., phonological influences which *recur* in *adapted* forms.

The English influences in HJ may be classed into four major categories - new phonemes, new distributions, clusters, and new combinations. New distributions are described according to patterning within the syllable, that is, syllable-initial and syllable final. New combinations, it will be remembered, cross syllable boundaries. Thus /C-/ indicates a syllable-initial consonant and /-C/ a syllable-final consonant. /CC-/ indicates a consonant cluster and /-CC-/ a combination.

The English influences in HJ may be listed as follows:

New phonemes:

/č- f- ǰ- v- -c -č -f

New distributions:[10]

/t- d- w- -k -m -ŋ -p -s -t/

Clusters:

/fr- sk- sp- st-/

New combinations:

/-fk- -ft- -ks- -kt- -mr- -ŋm- -ŋs- -sf- -tm-/.

Below are listed each of the influences, along with examples of forms in which the particular influence appears. The original English sources and meanings are also given for clarification.

New Phonemes.

In initial position

/č-/

/čeemaN/ 'chairman'
/čekas/ 'checkers'
/čeriburasam/ 'Cherry Blossom'

/f-/

/bifoodawaa/ 'before the war'
/faamasi/ 'pharmacy'
/faivu/ 'five'
/famiri/ 'family'
/fea/ 'fair'
/foo/ 'four'
/foodo/ 'ford'
/footo/ 'Fort (Street)'
/furai/ 'fry'
/fureN/ 'friend'
/furiipaakiŋ/ 'free parking'
/gorufu/ 'golf'
/koofi/ 'coffee'
/ofisu/ 'office'
/saNfuraNsisuko/ 'San Francisco'

---

10. The second group of influences, "new distributions," may be divided into two types. /t d w/ do occur in initial position in Japanese, but only before certain vowels. The privileges of occurrence for /k m ŋ p s t/, however do not include final position and this is an entirely new distribution.

/ʃ-/	/ʃeQto/ 'jet'
	/paʃeNto/ 'pageant'
/v-/	/aavenju/ 'avenue'
	/čiivil/ 'TV'
	/daiva/ 'diver'
	/faivu/ 'five'
	/karačiivii/ 'color TV'
	/karatiivii/ 'color TV'
	/ovahoru/ 'overhaul'
	/rizaavu/ 'reserve'
	/tiivii/ 'TV'
	/vaitamiN/ 'vitamin'
	/vikta/ 'Victor (RCA)'

In final position

/-c/	/kokonac/ 'coconut'
	/nac/ 'nuts'
	/tekec/ 'ticket'
	/tekec/ 'tickets'
/-č/	/staač/ 'starch'
	/sutaač/ 'starch'
/-f/	/haaf/ 'half'

New distributions
In initial position

/d-/ before /i/	/aidiikaado/ 'I.D. card'
	/kenedi/ 'Kennedy'
	/reedio/ 'radio'
/d-/ before /u/	/durai/ 'dry'
	/duraija/ 'dryer'
[t̄-] before [i]	/deNtis/ 'dentist'
	/hefti/ 'fifty'
	/hifti/ 'fifty'
	/karatiivii/ 'color TV'
	/paati/ 'party'
	/taati/ 'thirty'
	/tiivii/ 'TV'
[t-] before [u]	/tuu/ 'two'
/w-/ before /e/	/aNdaweaa/ 'underwear'
	/haadoweestoa/ 'hardware store'
	/haadoweesutoa/ 'hardware store'
	/haiwee/ 'highway'

/w-/ before /i/ — /mawi/ 'Maui'
/wisteria/ 'Wisteria (a Japanese restaurant)'
/wisuteria/ 'Wisteria'

In final position[11]

/-k/ — /burok/ 'block'
/daak/ 'dark'
/paak/ 'park'
/pikunik/ 'picnic'

/-m/ — /čeriburasam/ 'Cherry Blossom'
/čeriburasom/ 'Cherry Blossom'

/-ŋ/ — /furiipaakiŋ/ 'free parking'
/kiŋ/ 'King (Street)'
/paakiŋ/ 'parking'

/-p/ — /kap/ 'cup'
/kop/ 'cup'
/haafkap/ 'half-cup'
/haafkop/ 'half-cup'

/-s/[12] — /bas/ 'bus'
/burauNrais/ 'brown rice'
/čaNs/ 'chance'
/čekas/ 'checkers'
/čiis/ 'cheese'
/gas/ 'gas'
/ǰuus/ 'juice'
/kakipaNs/ 'khaki pants'
/kurimas/ 'Christmas'
/remoNǰuus/ 'lemon joice'
/nyuukuras/ 'new class'
/ofis/ 'office'
/ohis/ 'office'
/rais/ 'rice'

---

11. The occurrence of consonants in word-final position may also result in the appearance of new combinations when one of the above forms is used in an utterance of more than one word. In such cases, the form is often followed by the particles /ba⌜Qkari/ 'only', /de/ 'at', /ga/ 'topic marker', /kara/ 'from', /ma⌝de/ 'up to', /ni/ 'in', /no/ 'possesive marker', /to/ 'with', etc., or the copula /de⌝su/ 'is' (/da⌝/ 'is'). The result is a /C_1C_2/ combination in which /C_1/ is /č c f k m ŋ p s t/ and /C_2/ is /b d g k m n t ...../.

12. In some cases, utterance-final /-s/ is found to occur in Japanese. For example, the copula /de⌝su/ 'is' may appear as [de⌝su] or [de⌝sU] or as [de⌝s]. It is evident, however, that the /-s/ found in the data takes its origins from contact with English and that it must be counted as an influence. This interpretation is strengthened by the occurrence of /p t k f/ in final position without alternate forms containing voiceless vowels. It is confirmed by the occurrence of /m ŋ/ in final position, where they are never followed by voiceless vowel variants.

/-t/	/maaket/ 'market'
	/oorait/ 'allright'
	/supaamaaket/ 'supermarket'

Clusters

In initial position

/fr-/	/kurisumasfrawa/ 'Christmas flower'
/sk-/	/haiskuru/ 'high school'
	/samaskuru/ 'summer school'
	/skeǰuru/ 'schedule'
/sp-/	/spaNsa/ 'sponsor'
	/spea/ 'spare (ribs)'
	/spesjaru/ 'special'
	/spesjoru/ 'special'
	/spoNsa/ 'sponsor'
/st-/	/haorestairu/ 'haole style'
	/haadoweestoa/ 'hardware store'
	/masta/ 'master' (verb)
	/mista/ 'Mister'
	/staa/ 'Star (supermarket)'
	/staaǰ/ 'starch'
	/stairu/ 'style'
	/stoa/ 'store'

New Combinations

/-fk-/	/haafkap/ 'half-cup'
	/haafkop/ 'half-cup'
/-ft-/	/hefti/ 'fifty'
	/hifti/ 'fifty'
/-ks-/	/pikuniksiizuN/ 'picnic season'
/-kt-/	/dakta/ 'doctor/
	/dokta/ 'doctor'
	/vikta/ 'Victor (RAC)'
/-mr-/	/homraN/ 'home run'
/-ŋm-/	/paakiŋmiita/ 'parking meter'
	/wasiŋmisin/ 'washing machine'
/-ŋs-/	/kiŋsaamoN/ 'king salmon'
/-sf-/	/kurimasfrawa/ 'Christmas flower'
/-tm-/	/apaatmeN/ 'apartment'

Phonological Conclusions.

Now that the established English influences have been identified and classified, it is first possible to draw some preliminary conclusions from the data.

A. New Phonemes

Of the five borrowed phonemes, /f v/ seem more firmly established than /č ǰ/; in turn, the latter seem more firmly established than /c/. More specifically, /f/ appears to be more clearly accepted than /v/. While /f/ occurs in sixteen forms, in initial and final position (e.g. /footo/ 'Fort' and /haaf/ 'half-(inch)'), /v/ occurs in eleven forms, and only in initial position (e.g., /tiivii/ 'TV').

/č/ and /ǰ/, however, seem to be on an equal footing in their degree of acceptance. While /č/ appears in four forms, in initial and final position (e.g., /čeemaN/ 'chairman' and /staač/ 'starch'), /ǰ/ appears in two forms, but only in initial position (e.g., /ǰeQto/ 'jet'.

The phoneme which appears to be least firmly established is /c/. It occurs in only four forms, and always in final position (e.g., /tekec/ 'tickets').

Whereas /f v/ are clear-cut innovations, /č ǰ/ take their origins from a phonemic split. They were allophones of /t z/ until their presence in borrowed forms placed them in direct contrast. Moreover, the occurrence of [t d] before [i] adds another direct contrast and solidifies grounds for acknowledging their phonemic status.

B. New Distributions

In initial position, the respective occurrence of [t d] before [i u] and /w/ before /i e/ is a step towards greater symmetry in the syllable patterning of HJ. This new distribution of [t d] completes the patterning of consonants so that now any consonant may appear before any vowel. The distribution of /w/ before /i e/ provides for a wider range of occurrence for the semi-vowels.

In final position, the phonemes concerned are of two types, obstruents and nasals. The occurrence of /f k m ŋ p s t/ in final position has given rise to two new syllable types. These are of the form /VC/ and /CVC/. For example, the form /paak/'park' consists of two syllables, /CV/ and /VC/. In like manner, the form /bas/ 'bus' is represented as /CVC/.

C. Clusters

The occurrence of clusters is limited to initial position. They are of two types: (1) those with /s/ as the first member and a voiceless stop as the second member (e.g., /sp-/ in /spoNsa/ 'sponsor', /st-/ in /stoa/ 'store', and /sk-/ in /skejuru/ 'schedule') --and a single type with /f/ as the first member and /r/ as the second member (e.g., /fr-/ in /kurisumasfrawa/ 'Christmas flower').

The occurrence of these clusters has also resulted in a new syllable type. This is of the form /CCV/. For example, the form /stoa/ 'store' consists of two syllables /CCV/ and /V/.

D. New Combinations.

The phonemes which are most common in their occurrence in combinations are /f k ŋ/. Each of these occurs in two different combinations as the first member (e.g., /-fk-/ in /haafkop/ 'half-cup', /-ft-/ in /hifti/ 'fifty', /-ks-/ in /pikuniksiizuN/ 'picnic season', /-kt-/ in /dakta/ 'doctor', /-ŋm-/ in /wasiŋmisiN/ 'washing machine', and /-ŋs-/ in /kiŋsaamoN/ 'king salmon'. The other combinations represent types with one member apiece (e.g., /-mr-/ in /homraN/ 'home run', /-sf-/ in /kurimasfrawa/ 'Christmas flower', and /-tm-/ in /apaattmeN/ 'apartment').

The occurrence of these combinations is relatively scant. For example, /-kt-/ appears the greatest number of times, occurring in three forms. /-fk- -ft- -ŋm-/ appear in two forms each, and the rest in only one form apiece.

Secondly, it is possible to derive the following "hierachy of difficulty" from the number and types of influences in HJ.[13] The influence types are presented in descending order of difficulty, and the numbers in parentheses indicate the number of attested influences for each category.

Clusters (4)

New Phonemes (5)

New Combinations (9)

New Distributions (12)

There is little doubt, however, that this scale represents the limitations of using a restricted corpus. If another corpus of randomly selected forms had been used, the results might have been different. If the corpus had been more extensive, the results probably would have been parallel, but more satisfying.

It is questionnable to derive conclusions from the "hierachy of difficulty" shown for English influences in HJ which would be applicable to linguistic contact in general. A controlled series of contact studies would have to be carried out before generalizations could be offered profitably. It would seem, then, that the "hierachy of difficulty" presented above is valid for the case of HJ only.

Third, some of the influences may be explained in structural terms. The most obvious instance of this is /č ǰ/. The HJ speaker already exhibited these in his linguistic repertoire as conditioned allophones of /t z/, and consequently, there was no need to learn a new set of distinctive features. It was sufficient for these phones to occur in new distributions to establish their phonemic status. However, other cases, like that of /f v/, are outright borrowings.

---

13. Suggested by Tsuzaki, 1963: 65.

Fourth, it is logical to expect more innovation in the phonotactics of a language than in its phonemic inventory -- there are more gaps in the phonotactic patterning of a language than in its phonemic system. HJ bears this observation out with twenty-five innovations in pattern, but with only five in the system.

General Conclusions.

The effect which established influences from English have had on HJ has been far-reaching. In all, some thirty influences have been accepted -- five in the phonemic inventory and twenty-five in the phonotactics.

Considering the number of influences and their types, it may be said that the degree to which they have altered the structure of HJ is fairly great. Several of the categories used in the classification of the data point in this direction. Prior to contact with English, there were, for example, no consonant clusters in any position. Neither were there any consonants occurring in final position, except /N/, nor were there any medial combinations whose first member was not an allophone of /N/. Each of these represents a completely new distributional category.

The appearance of new syllable types also points to the degree of alteration which the phonological structure of HJ has undergone. A major result of the borrowing of new distributions, consonant clusters, and new combinations has been an increase in the number of syllable types. Three new types have been added to the existing six. These are of the form /CCV/, /VC/, and /CVC/.

Finally, it may be said that the influence of English on the phonology of HJ has resulted in a variety of Japanese that is different from any other, and in this sense, HJ may be considered a distinct dialect.

BIBLOGRAPHY

Hattori, Shiroo, 1960. *Gengogaku No Hoohoo.* Tokyo.

Haugen, Einar, 1956. *Bilingualism in the Americas.* Gainesville Fla., The American Dialect Society.

Hockett, Charles F., *A Manual of Phonology.* Indiana University Publications in Anthropology and Linguistics, No. 11.

Kess, Joseph F., 1965. "English Influences in the Phonology of Japanese as Spoken in Hawaii." Unpublished M.A. thesis, University of Hawaii.

Lind, Andrew W., 1946. *Hawaii's Japanese.* Princeton, Princeton University Press.

Martin, Samuel E., 1952. "Morphophonemics of Standard Colloquial Japanese." *Language* 28, No. 3, Part 2.

Tsuzaki, Stanley M., 1963. "English Influences in the Phonology and Morphology of the Spanish spoken in the Mexican Colony in Detroit, Michigan." Unpublished Ph.D. Dissertation, University of Michigan.